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PUBLIC INFORMATION STATEMENT  
NATIONAL WEATHER SERVICE RALEIGH NC  
800 AM EDT THU MAY 29 2008

...NORTH CAROLINA HURRICANE AWARENESS WEEK...

This week has been declared North Carolina's hurricane awareness week for 2008. All week long the National Weather Service will be issuing informative messages to help you prepare for hurricane season.

Each day we will cover a different topic. Today we will talk about the forecast process.

The National Hurricane Center...

The primary mission of the National Weather Service and Tropical Prediction Center is to save lives and protect property by issuing watches, warnings, forecasts, and analyses of hazardous weather conditions in the tropics. The Tropical Prediction Center is comprised of the National Hurricane Center...the Tropical Analysis and Forecast Branch...and the Technical Support Branch. During hurricane season, the latter two provide support to the National Hurricane Center.

Observation...

When forecasting and warning for hurricanes the National Weather Service uses all of the tools in the arsenal. Satellites... Buoys... Aircraft and radar are all important tools used for hurricane tracking and prediction. While hurricanes are still far out in the ocean, indirect measurements of the storms intensity and behavior are made primarily via satellite, although ships and buoys provide some observations. Once the storms come within range of aircraft more direct measurements are taken by reconnaissance aircraft which drop radiosondes in the core of the storm. Within about 200 miles of the coast, radar provides important measurements of the storm. Computer models used to forecast storm intensity and movement require a great deal of data about the atmosphere including all the observation data from satellites, aircraft, ships and radar.

Model guidance...

Computer models take all the various observations and perform millions of calculations to generate predictions of hurricane behavior. The atmosphere in which the hurricane is moving is very important to hurricane intensity and motion. The output from all of these computer models are packaged as guidance and evaluated by hurricane specialists at the National Hurricane Center as well as local National Weather Service forecast offices.

Hurricane forecasters must look at all of the model results, which frequently give widely different pictures of the future. When the models disagree, hurricane forecasters must use their experience and judgment to decide which model is performing the best under the current conditions. A good forecaster has an extensive education in the science of meteorology and considerable experience in tropical forecasting. Forecasters recognize that conditions can change quickly. This is why forecasts talk about "probabilities" and "margin of error".

Product generation...

Once forecasts, watches and warnings have been coordinated along the coast between the National Hurricane Center and local National Weather Service offices the National Hurricane Center generates the hurricane forecast and warning products. Hurricane forecasts are issued 4 times a day when hurricanes are present in the Atlantic Ocean... Caribbean Sea or Gulf of Mexico at 5 am... 11 am... 5 pm... and 11 pm edt.

Information dissemination...

All of this hurricane forecast and warning information is sent out to all media outlets for relay to everyone. Television...radio...the Internet and NOAA weather radio are some of the best means to get the most up to date hurricane information. The internet can also be a good source of information. You can visit the Raleigh National Weather Service office at <http://weather.gov/rah> to get local forecasts and hurricane forecasts and warnings.

Your local Raleigh National Weather Service office...

The role of the Raleigh National Weather Service office is to take the hurricane forecasts from the National Hurricane Center and localize the threat to central North Carolina. The Raleigh office closely examines the threats of wind... tornadoes... rainfall and flooding. This information is provided to local and state emergency management as well as the media. The Raleigh NWS office will issue river flood and flash flood warnings to help save lives from flood waters that occur after a hurricane drop torrential rain. tornado warnings will also be issued by the Raleigh office as forecasters detect them on the NEXRAD doppler radar.

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